

**What is Claimed Is:**

*Sab 2*

1. A method comprising:  
2. receiving a data frame on a receive port from a first  
3. device connected to a network, said data frame including a source  
4. media access control (MAC) address for said first device and a  
5. destination MAC address for a second device connected to said  
6. network;  
7. forwarding said data frame to a target port corresponding  
8. to said second device; and  
9. learning said source MAC address locally to said target  
10. port.

1. 2. The method of claim 1, said learning step comprising:  
2. determining whether said source MAC address is present  
3. in a database local to said target port; and  
4. recording said source MAC address in said local  
5. database if not present.

1. 3. The method of claim 1, further comprising performing  
2. frame forwarding using said locally-learned MAC address.

1. 4. The method of claim 2, further comprising aging said  
2. MAC address locally.

1           5. The method of claim 2, further comprising:  
2                 bundling a pre-determined number of said MAC  
3                 addresses into a reply in response to a report request from a control  
4                 point; and  
5                 transmitting said reply to said control point.

1           6. The method of claim 5, further comprising:  
2                 compiling a plurality of said replies into an aggregate database;  
3                 and  
4                 reporting said aggregate database to a network user or  
5                 manager.

1           7. The method of claim 5, wherein said report request is  
2                 issued at time intervals which are configurable by a network user.

1           8. A network switch comprising:  
2                 a port connected to a network device;  
3                 processors and a MAC address database local to said  
4                 port;  
5                 said processors programmed to perform MAC address  
6                 learning locally to said port.

1           9. A network switch comprising:  
2                 a port connected to a network device;  
3                 processors and a MAC address database local to said port;

4           said processors programmed to perform MAC address learning  
5       locally to said port.

1           10. The network switch of claim 8, said processors  
2       programmed to perform frame forwarding using said local MAC  
3       address database.

1           11. The network switch of claim 8, said processors  
2       programmed to perform aging of said local MAC address database.

1           12. The network switch of claim 8, a database-handling  
2       processor of said processors programmed to bundle a pre-  
3       determined number of said MAC addresses into a reply in response  
4       to a report request from a control point included on said switch, and  
5       transmit said reply to said control point.

1           13. The network switch of claim 12, said control point  
2       compiling a plurality of said replies into an aggregate database and  
3       reporting said aggregate database to a network user or manager.

1           14. A computer-readable medium storing computer-executable  
2       instructions, said instructions when executed by a processor  
3       implementing a method comprising:  
4                  receiving a data frame on a receive port from a first  
5       device connected to a network, said data frame including a source

6 media access control (MAC) address for said first device and a  
7 destination MAC address for a second device connected to said  
8 network;

9 forwarding said data frame to a target port corresponding  
10 to said second device; and

11 learning said source MAC address locally to said target  
12 port.

1 15. The computer-readable medium of claim 14, said learning  
2 step comprising:

3 determining whether said source MAC address is present  
4 in a database local to said target port; and

5 recording said source MAC address in said local  
6 database if not present.

1 16. The computer-readable medium of claim 14, said method  
2 further comprising performing frame forwarding using said locally-  
3 learned MAC address.

1 17. The computer-readable medium of claim 14, said method  
2 further comprising aging said MAC address locally.

1 18. The computer-readable medium of claim 14, said method  
2 further comprising:

3                   bundling a pre-determined number of said MAC  
4                   addresses into a reply in response to a report request from a control  
5                   point; and  
6                   transmitting said reply to said control point.

1                 19. The computer-readable medium of claim 18, said method  
2                   further comprising:

3                   compiling a plurality of said replies into an aggregate  
4                   database; and  
5                   reporting said aggregate database to a network user or  
6                   manager.

1                 20. The computer-readable medium of claim 18, wherein said  
2                   report request is issued at time intervals which are configurable by a  
3                   network user.